AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An earthquake prediction method ~~wherein~~comprising:

observing magnetic field vectors of magnetic fields within an observation area;

estimating telluric current induction field vectors and telluric currents ~~are estimated~~ based on vector differences between the observed magnetic field vectors ~~of magnetic fields that are observed within an observation area~~ and a geomagnetic vector; ~~and~~

collating and comparing a change over time of the estimated telluric currents and a state of the estimated telluric currents within ~~said~~ the observation area ~~are compared and collated with~~ , with past patterns of change over time of ~~the~~ telluric currents and a state of the telluric currents; and

~~to estimate~~estimating a seismofocal zone, time of occurrence, and seismic intensity of a seismic event based on the comparison.

2. (currently amended): The ~~An~~ earthquake prediction method according to claim 1, ~~wherein~~further comprising:

eliminating a magnetic field noise component at observation points ~~is eliminated~~ from observed magnetic fields;

finding an amount of divergence ~~of~~ between a direction of a magnetic fields ~~from a~~

~~direction of true north at observation points~~ from which said magnetic field noise component has

been eliminated ~~is found~~ and a direction of true north; and

estimating said telluric current induction field vectors ~~are estimated~~ based on vector

differences between observed magnetic field vectors from which said magnetic field noise

component has been eliminated and a geomagnetic vector that has been corrected to true north.

3. (currently amended): The ~~An~~ earthquake prediction method according to claim 2,

wherein estimating telluric current induction field vectors and telluric currents comprises:

plotting said estimated telluric current induction field vectors ~~are plotted~~ on a map; and

estimating said telluric currents ~~are estimated~~ by ~~both~~ joining points on the map at which

geomagnetic abnormalities are recognized and applying Ampere's right-handed screw rule.

4. (currently amended): The ~~An~~ earthquake prediction method according to claim 1,

wherein estimating telluric current induction field vectors and telluric currents comprises:

plotting said estimated telluric current induction fields ~~are plotted~~ on a map; and

estimating a seismofocal zone at an area in which said estimated telluric currents are

concentrated ~~is estimated to be a seismofocal zone~~.

5. (currently amended): ~~An~~ The earthquake prediction method according to claim ~~1~~4,

~~wherein~~ further comprising:

gathering past data of telluric current induction field intensities of ~~said~~ the estimated

seismofocal zone ~~that has been estimated in claim 4 are gathered and~~;

generating a telluric current induction field intensity change pattern that indicates change

over time ~~is generated; and~~

collating and comparing the telluric current induction field density change pattern ~~this~~

~~pattern is then compared and collated~~ with past telluric current induction field intensity change

patterns that have been stored; and

~~to estimate~~estimating said time of occurrence and seismic intensity of a seismic event.

6. (currently amended): An earthquake prediction system ~~that uses the earthquake~~

~~prediction method according to claim 1; said earthquake prediction system~~ comprising:

~~mobile telephones or mobile units such as vehicles or ships, each unit carrying~~a plurality

of mobile units which move within an observation area, each mobile unit comprising:

a magnetic force line sensor which determines and outputs ~~for supplying as output~~

magnetic field data indicating ~~that indicate~~a direction and intensity of lines of magnetic

force;

a GPS position detector ~~for receiving~~which receives radio waves of a GPS

satellite and outputs~~supplying as output~~ position data that ~~indicate~~indicates position; and

a data transmitter ~~for transmitting said data~~which transmits the magnetic field data

and the position data; and

an earthquake prediction center ~~for collecting said data of various points that are transmitted by said mobile units or said mobile telephones that travel within an observation area and then implementing earthquake prediction~~which receives the magnetic field data and the position data from the plurality of mobile units and which predicts earthquakes based on the received data;

wherein each of the plurality of mobile units is one of a mobile telephone, a vehicle, or a ship.

7. (currently amended): ~~An~~ The earthquake prediction system according to claim 6, ~~said~~ wherein the earthquake prediction center comprises~~comprising~~:

a data receiver ~~for receiving data that have been transmitted from said mobile telephones or said mobile units by way of a communication network and antenna~~which receives data from the plurality of mobile units via a communication network;

a data storage unit ~~for retaining and storing various data such as map data and data that have been~~which stores the data received by said data receiver;

a telluric current induction field estimation unit ~~for estimating~~which telluric current induction fields based on map data and data that ~~have~~has been ~~retained and~~stored in said data storage unit;

a telluric current estimation unit ~~for estimating~~which estimates telluric currents based on ~~said~~the estimated telluric current induction fields ~~that have been estimated~~;

a telluric current induction field intensity change pattern generation unit ~~for~~

~~accumulating~~which accumulates transitions over time of said telluric current induction field

intensities and ~~then generating~~which generates change patterns based on the accumulated

transitions of telluric current induction field intensities; and

an earthquake prediction unit ~~for analyzing~~which analyzes ~~said~~ the estimated telluric

currents ~~that have been estimated~~ and said change patterns of said telluric current induction field

intensities ~~to estimate~~, and estimates a seismofocal zone, seismic intensity, and time of

occurrence of a seismic event based on the analysis.

8. (currently amended): An earthquake prediction system according to claim 6, wherein,

at least one of the plurality of mobile units is a vehicle and the GPS position detector of the

vehicle comprises a car navigation system~~when said mobile unit is provided with a car~~

~~navigation system, position data of said car navigation system is used instead of data from said~~

~~GPS position detector~~.

9. (currently amended): An earthquake prediction system comprising:

a plurality of units, each unit comprising:

a magnetic force line sensor which determines and outputs magnetic field data

indicating a direction and intensity of lines of magnetic force; and

a data transmitter which transmits the magnetic field data and position data; and

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an earthquake prediction center which receives the magnetic field data and the position data from the plurality of mobile units and which predicts earthquakes based on the received data;

~~An earthquake prediction system according to claim 6, wherein:~~

~~said magnetic force line sensor and communication equipment are installed in~~wherein at least one of the plurality of units comprises a preselected existing fixed structures within ~~the~~ an observation area; and

said ~~communication equipment transmits magnetic field data output of said magnetic force line sensor and information indicating installation positions~~data transmitter transmits the magnetic field data and position data to said earthquake prediction center by way of an existing communication network.

10. (currently amended): An earthquake prediction system according to claim 6, wherein:

at least one of said mobile units is a ~~said magnetic force line sensor and GPS position detector are incorporated in a mobile telephone or a mobile unit; and~~

~~said~~ mobile telephone which uses its own communication capabilities to transmit observation data to said earthquake prediction center.

11. (currently amended): An earthquake prediction system according to claim 9,
wherein each unit further comprises an acceleration sensor-is provided, and said magnetic field
data are-is transmitted when said acceleration sensor detects earthquake motion.

12. (currently amended): An earthquake prediction system according to claim 6,
wherein each mobile unit further comprises an acceleration sensor, -is provided-and said
magnetic field data are-is transmitted when said acceleration sensor detects a stationary state of
at least a fixed time interval.

13. (currently amended): An earthquake prediction method according to claim 2,
wherein:

said magnetic field noise component is a change in magnetic field that is observed at
fixed time intervals at a fixed observation point; and

eliminating said magnetic field noise component is eliminated bycomprises analyzing
characteristics of a pattern of this-the change in magnetic fields that is observed at fixed time
intervals as a fixed observation point and then-extracting the magnetic field noise component
from observed magnetic fields.

14. (currently amended): An earthquake prediction method according to claim 2,
wherein estimating said telluric currents comprises using are estimated by means of Ampere's

right-handed screw rule based on said estimated telluric current induction field vectors of a

plurality of points.

15. (currently amended): An earthquake prediction method according to claim ~~1~~4~~2~~,

wherein <u>estimating</u> said telluric currents ~~are estimated by means of~~<u>comprises using</u> Ampere's

right-handed screw rule based on said estimated telluric current induction field vectors of a

plurality of points that form a loop.